AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES
AMENDMENT OF SOLICITAL	TON/MODIFICAT	TION OF CONTRACT				1 2
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE F	NO.	D. 5. PROJECT NO.(If applicable)		
0006	04-Sep-2003					
6. ISSUED BY COD	<u> </u>	7. ADMINISTERED BY (If other	er than	item 6)	CODE	<u> </u>
NAVAL SURFACE WARFARE CENTER, CARDEROCK CODE 3352, ANNMARIE BARTHOLOMEO 5001 SOUTH BROAD ST PHILADELPHIA PA 19112-5083				,		
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)			X 9A. AMENDMENT OF SOLICITATION NO. N65540-03-R-0001			
			$^{\Lambda}$	B. DATED 25-Jun-200	(SEE ITEM 1 3	1)
		-				CT/ORDER NO.
CODE	FACILITY CODE			0B. DATEI	D (SEE ITEM	. 13)
	•	ES TO AMENDMENTS OF SOLICI	TATI	ONS		
The above numbered solicitation is amended as set forth in Item	14. The hour and date specified	for receipt of Offer	is	extended,	X is not ex	ctended.
or (c) By separate letter or telegram which includes a reference RECEIVED AT THE PLACE DESIGNATED FOR THE REC REJECTION OF YOUR OFFER. If by virtue of this amendment provided each telegram or letter makes reference to the solicite	copies of the amendment; (b) By to the solicitation and amendmen EIPT OF OFFERS PRIOR TO THent you desire to change an offer a attion and this amendment, and is reference.	acknowledging receipt of this amendment on at numbers. FAILURE OF YOUR ACKNOW IE HOUR AND DATE SPECIFIED MAY RI Ilready submitted, such change may be made	each of the control o	copy of the off GMENT TO B IN gram or letter,	Е	
12. ACCOUNTING AND APPROPRIATION DATA (I	f required)					
		DIFICATIONS OF CONTRACTS/O DER NO. AS DESCRIBED IN ITEM		RS.		
A.THIS CHANGE ORDER IS ISSUED PURSUANT CONTRACT ORDER NO. IN ITEM 10A.				ARE MAD	E IN THE	
B.THE ABOVE NUMBERED CONTRACT/ORDER office, appropriation date, etc.) SET FORTH IN I'				S (such as c	hanges in payi	ng
C.THIS SUPPLEMENTAL AGREEMENT IS ENTE	RED INTO PURSUANT T	O AUTHORITY OF:				
D.OTHER (Specify type of modification and authority	·)					
E. IMPORTANT: Contractor is not,	is required to sign this do	ocument and return	copie	es to the issu	ing office.	
14. DESCRIPTION OF AMENDMENT/MODIFICATION where feasible.) See Page 2						
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, 15A. NAME AND TITLE OF SIGNER (Type or print)		heretofore changed, remains unchanged and in full force and effect. 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			print)	
		6B. UNITED STATES OF AMERIC				16C. DATE SIGNED
13B. CONTRACTOR/OFFEROR			∠ A			
(Signature of person authorized to sign)		(Signature of Contracting Office	er)			04-Sep-2003

EXCEPTION TO SF 30 APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

- A. The date for receipt of proposals remains 5 September 2003, 1300 hrs.
- B. There have been a few instances within Section C of the specification, where the word "service(s)" has been removed and replaced with "support". Attached is a new Section C incorporating the changes in wording.

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 SCOPE OF WORK

- (A) The purpose of this contract is to provide manpower and material to furnish Habitability and Food Support installations and repairs. Work is to consist of materials and equipment procurement, storage, tracking and delivery to the work site; fabrication (for items such as foundations, known piping configurations, ventilation ductwork, electrical support, etc. and parts/equipment needed for unique form, fit or function requirements); engineering and arrangements support (for items such as electrical, mechanical, piping, ventilation and general arrangements CAD drawings; other CAD support will include but not limited to drawings for technical manuals and food equipment/support catalogs); and trade labor. This contract will also provide for the installation of bulkhead sheathing, false overheads, various types of decking materials and manufacture of various types of habitability equipment (i.e. clothing lockers, etc.), which cannot be purchased in a timely manner. This effort is required to accomplish habitability condition assessments, alterations, installations. modifications, repairs, and upgrades to spaces, systems, components, and furnishings as authorized. Work will be performed on all types of naval vessels (including but not limited to aircraft carriers, surface ships and small craft), and at land-based facilities (including, but not limited to, operating, testing, training and maintenance sites). Approximately 45% of the work will be performed in the Norfolk, VA area, 5% at other East Coast areas, 48% on the West Coast and 2% at various overseas locations. All non-nuclear work on nuclear powered ships must be in strict compliance with the Naval Sea Systems Command Instruction (NAVSEA) C9210.4A. (This is a classified instruction, which will be forwarded separately). The contractor shall provide qualified and, certified personnel to perform the tasks described in this Scope of Work.
- (B) Contractor shall have the necessary personnel and equipment to support twenty-seven (27) simultaneous installations. Installation teams could require up to 10 to 15 people from the various labor categories. Due to the fact that most of the effort is expected to be accomplished on active ships which are in a ready-to-sail status, scheduling can be volatile and planning, estimating and resource acquisition could be immediate and intensive. It should be noted that this Scope of Work and the following paragraphs provide a general overview of efforts that may be required. In the event of a conflict the General Specifications for Overhaul of Surface Ships, General Specifications for Ships, General Overhaul Specifications for Deep Diving SSBN/SSN submarines, and applicable military and US Navy accepted commercial, specifications, standards, drawings and instructions, notices and directives, will take precedence. Delivery orders issued under the resulting contract shall delineate specific tasks and work assignments.

C.2 PERFORM PRE-WORK SITE SURVEYS

(A) The contractor will need to conduct pre-work site-surveys as designated to identify resource and material needs, situational interferences between the drawings and the specific physical and environmental conditions and desired labor and support requirements. Note: when required, a final site survey will be conducted with the NSWCCD-SSES Code 9783 point of contact approximately three days prior to scheduled installations to affirm the schedule and ensure no interim changes have occurred.

C.3 PERFORM SHIPCHECKS/PREPARE TECHNICAL/DESIGN DOCUMENTATION

- (A) The contractor will need to conduct shipchecks on ships designated in delivery orders as needing work accomplished for any or all of the following:
 - (1) Conduct engineering analyses and technical evaluations of spaces, systems, equipment, components, furnishings and subassemblies in support of equipment and arrangements condition improvement.
 - (2) Determine technical requirements for engineering modifications and configuration changes of spaces and systems including preparation of field changes; Ship/MachAlt scopes, proposals and records; Alteration Equivalent to Repairs (AERs); etc.
 - (3) Perform technical evaluations, reviews and validations of installation, assembly, disassembly, test, checkout, operational and repair procedures at all involved levels.

- (4) Perform technical information reviews, searches, gatherings, correlations and interpretations of technical data required to support the preparation, revision or data verification of technical documentation.
- (5) Prepare summary critique analyses for documentation compliance with specifications, sentence structure, grammar, usage and effectiveness of format to assure, clarity, brevity, and objectivity.
- (6) Prepare, modify or review specifications, provisioning technical documentation and installation, test, maintenance, and operational procedures including assembly, disassembly and training instructions.
- (7) Prepare technical/special project reports resulting from on-site analyses of technical problems, need for additional assistance at work and repair activities and on-site technical surveys and investigations. Prepare daily "lessons learned" reports listing problems and situations encountered that were not anticipated such that they can be adequately accommodated for in future work and thus eliminate related cost and time overruns.

C.4 PERFORM WORK

- (A) The contractor shall provide the following necessary manpower, documentation, facilities, communications, equipment, tools and trade personnel to accomplish applicable assigned work:
 - (1) One dedicated Foreman per work effort/work location for the duration of each work effort and ensure that each Foreman is prepared to discuss all aspects of their assigned project's effort including: personnel resources and availabilities, applicable safety equipment requirements and provisions, material and equipment status, shipping schedules and related impacts, work and effort requirements and safety concerns. Each Foreman shall conduct a Foreman meeting, with the respective NSWCCD-SSES Code 9783 Installation Manager present no less than 15 days prior to beginning work. Minutes of Foreman Meetings shall be taken and provided to the Naval Surface Warfare Center, Carderock Division, Philadelphia, Code 9783 Program Manager. Prepare a proposed day-by-day installation schedule prior to the initial Foreman meeting.
 - (2) Trades personnel shall meet the technical skill requirements at the journeyman level; have the required security clearances; are properly trained in the use of and provisioned with applicable safety equipment; and accommodate U.S. Navy, Federal and Local Government rules and regulations concerning safe working conditions and ethics and hazardous materials handling, use and disposal.
 - (3) Engineering support for setting up and monitoring databases and analyzing data as requested. For ensuring of equipment performance, and to ensure configuration changes are technically and structurally compatible with the ship and its operational requirements.
 - (4) Provide a comprehensive Quality Assurance Program to be developed in order to comply with the QA inspections/requirements set forth in paragraph C5. The plan shall be submitted as part of the Technical Proposal. Contractor QA workbook must be present on location of each and every installation.
 - (5) The necessary shop facilities, equipment and capabilities (machines, tooling, tools, support and space) to fabricate/prefabricate parts, components, and assemblies; safely and securely move and maintain materials; and order, process and certify material and equipment.
 - (6) Provide necessary administrative and logistics support for the work crew(s) and NSWCCD-SSES Code 9783 work oversight personnel for immediate material purchases/delivery and to timely and cost effectively coordinate special work requirements.
 - (7) Provide safe, secure, portable workshops (similar to existing NSWCCD-SSES 97 CONEX boxes) as required to support the work effort on-site with adequate tools/tooling, safety equipment, material storage areas and an adequate supply of related consumables.

- (8) Ensure the following minimum requirements are met:
 - (a) Shipboard Industrial Safety: The contractor shall comply with applicable union, state, local, EPA and Navy safety regulations. Note that different locales (i.e., ship, shipyard, state, local, etc.) requirements may differ slightly. Any person found in violation of red tags, welding without firewatches and similar safety violations, may be removed from working on this contract at the discretion of the NSWCCD Program Manage and the Contracting Officer.
 - (b) The contractor shall ensure conformance with shipboard routine in maintaining cleanliness, personnel conduct including the proper manner in addressing the opposite sex on board and ships security and integrity. All personnel shall be brief/trained in sexual harassment. Any person found in violation in sexual harassment will be removed from working on this contract.
- (9) The contractor shall provide and maintain current welder and pipefitter certifications for the approved welding/brazing process. ALL WELDING PROCESSES MUST BE APPROVED BY NSWCCD-SSES PHILADELPHIA WELDING DEPT for all work under this contract. Under no circumstances will a welder/brazer perform the required welding/brazing process unless they are certified to perform that welding/brazing process. Personnel shall carry on their person a copy of the certification at all times during the work effort. See C.15.B.
- (10) Rehabilitate affected spaces to original or as directed condition, which includes, but is not limited to:
 - (a) Cleaning, preparing, priming and painting new and disturbed surfaces to match surrounding areas. Cleaning and repairing shipboard ventilation ducts IAW EPA and Navy Safety regulations for cleaning reagents and proper disposal.
 - (b) Replacing all deck coverings and insulation, damaged incidental to work performed. If more than 35% of the deck surface area is damaged, replacement covering of the complete space will be required. Replacement deck coverings shall match the remaining quality, styles, colors, and grades.
 - (c) Repairing all work related damaged lagging and installing of new lagging, in accordance with MIL-STD-769J(SH) dated 09 October 1990.
 - (d) Properly applying stenciling, labels plates, tags, instruction plaques etc. for power panels, piping, hardware, cabling, structures, etc. with new replacements.
- (11) Thoroughly clean all affected spaces at the completion of the work effort and maintain as neat and clean surroundings as the work effort will allow during the workday. Where work produced contaminates can spread to adjacent areas, provide barriers to control their spread.
- (12) Foreman shall ensure that all personnel are thoroughly briefed on their respective responsibilities before starting each different work effort in this contract or delivery order. In the event of multiple shifts on a task, the following shift work leader shall be fully briefed on all conditions at the end of the outgoing shift.
- (13) All Maintenance Documentation developed or modified shall be done in accordance with the procedures, formats and requirements of MIL-P-24534A. This includes the preparation of Reliability Centered Maintenance (RCM) analyses to support maintenance procedure developments. Personnel developing maintenance requirements shall be Level 2 certified in accordance with NAVSEA 04M1 RCM Certification Program.

C.5 CONDUCT QUALITY ASSURANCE INSPECTIONS AND TESTS

- (A) The purpose of this requirement is to assure that all work has been accomplished in accordance with delivery order directions, approved specifications and drawings and applicable standards and practices including, but not limited to, documents as stated in C.8 Standards/Specifications. A QA Work Book Plan, Schedule of expected inspections, and Installation Drawings and Sketches must be at each installation site. In addition to the above, the contractor will be expected to perform the following inspections, certifications and tests and provide a copy of the results for:
 - (1) Cable continuity and correct electrical hookup.
 - (2) Pressure testing of watertight compartment entries.
 - (3) Input and output power levels.
 - (4) Bonding, grounding, and shielding.
 - (5) Paragraph C.8.A. (6) Required electronic equipment.
 - (6) Paragraph C.8.A. (7) Required weld joints non-destructive testing.
 - (7) Paragraph C.8.A. (16) Required piping system installation, testing and labeling.
 - (8) Secured cables to cable wireways with flexible cinch banding straps.
 - (9) Kick pipes and stuffing tubes are used for all penetrations of decks and watertight bulkheads. Stuffing tubes shall be statically tested for watertight integrity.
 - (10) Gas-free certification before welding.
 - (11) Collars and nylon stuffing tubes installed in all penetrations of non-watertight bulkheads.
 - (12) Cabling, equipment, piping, valves, instruments and hoses installed in accordance with MIL-P-15024.
 - (13) Warning, caution and safety plates comply with MIL-P-15024.
 - (14) Lubrication charts show maintenance points, frequency of maintenance, any necessary replacement parts and lubricants in accordance with MIL-HNBK-267-SH.
 - (15) Receipt inspection of all material procured.
 - (16) Prefabricated parts inspected and certified where applicable.
 - (17) All personnel know and adhere to the requirements of this contract and the approved contractor's Quality Assurance Program.
- (B) Reliability and maintainability (R&M) and Safety Requirements shall be defined in accordance with MIL-STD-721.
- (C) Definition of failure: A ship system failure is defined as any event which necessitates corrective maintenance, including failures as defined in MIL-STD-781, Sections 5.6.1.1 and 5.6.1.3, and MIL-STD-1629, Section 5.9.1. Chargeable failures include any major or minor failure attributable to the internal operation of the system components. Failures due to external sources or operator error do not constitute chargeable failures, but should be evaluated as part of the safety study.
- (D) The contractor shall provide personnel, material and tooling for all hull, electrical and mechanical aspects of testing, repair, replacement, modification or alteration to habitability spaces, systems, components, equipment and furnishings. Including but not limited to food service, messing and galley; non cargo stowage and stowage aids; heating, ventilation and air conditioning; refrigeration; laundry and dry cleaning; ship services (such as barber shops, ship's stores, small stores, chapels, etc.); berthing; offices; and specialty areas such as Gaylord type hoods, APC systems, quarry tile, etc.

C.6 PERSONNEL QUALIFICATIONS/RESPONSIBILITIES

- (A) In the performance of any task under this contract, the contractor shall be required to use qualified personnel for each position. Persons filling these positions must meet the following minimum educational/experience requirements:
 - (1) <u>Project Superintendent (Key personnel):</u> The senior person shall be directly involved with supporting and ensuring that all the requirements of and all work efforts are within the scope of the contract. The Project Superintendent shall ensure related delivery orders and all efforts are manned with competent, properly trained and certified people; proper materials are procured and well maintained and work efforts are well coordinated and timely executed in a cost effect manner. The Project Superintendent is responsible for all of the General Foreman, and ensuring they perform within the guidelines of the contract, delivery orders and the NSWCCD-SSES Code 9783 Program Manager. The Project Superintendent shall have:
 - (a) Minimum of eight (8) years managerial and/or supervisory experience of engineering projects including operations, maintenance, repair, testing, modification, upgrading, installation and alteration of Naval ship systems.
 - (b) Minimum of eight (8) years experience in design, test, operation and maintenance of Naval ship systems.
 - (c) Minimum of four (4) years experience with habitability systems, subsystems, equipment, components, furnishings and spaces on Navy ships.
 - (d) Minimum of one (1) year experience with 3-M Systems (PMS, COSAL, and ILS) and the SHIPA-LT/FMP processes.
 - (e) Knowledge of relationships, policies and procedures of NSWCCD-SSES, NAVSEA, Naval Shipyards, Type Commanders and the Navy's supply system's organizations.
 - (f) Must have a minimum of a high school degree or a technical vocational high school degree.
 - (2) <u>Engineer (Key personnel)</u>: The Engineer is an individual that develops and maintains databases, analyzes data, does calculations to support component designs (for foundations, equipment and support requirements), arrangements changes, etc. in direct support of this contract when requested by specific delivery orders. The engineer shall have:
 - (a) Minimum of eight (8) years experience in engineering for design, operations, maintenance, testing and evaluating projects and associated alterations, installations and upgrades for Naval vessels.
 - (b) Minimum of six (6) years experience with Naval and related commercial shipbuilding design, operations and maintenance data systems, principals, practices, procedures, processes, standards, drawings and specifications.
 - (c) Minimum of two (2) years experience with naval habitability systems, subsystems, equipment, components, furnishings and spaces.
 - (d) Minimum of one (1) year's experience with related Integrated Logistics Support (ILS) requirements (PMS/RCM, COSAL, APL and procurement processes) and the SHIPALT/FMP processes.

- (e) Must have a Bachelor of Science degree in Engineering from an accredited college or university or is a Licensed Marine Engineer from a recognized merchant marine academy or school.
- (3) <u>General Foreman (Key personnel)</u>: The General Foreman is the individual directly involved with supporting Foreman and ensuring that all the requirements of and all work efforts are within the scope of the contract and related delivery orders. He/She insures that all efforts are manned with competent, properly trained and certified people; proper materials are procured, and well maintained and work efforts are well coordinated and timely executed in a cost effect manner. The General Foreman is responsible for all of the Foreman and ensuring they perform within the guidelines of the contract, delivery orders and the NSWCCD-SSES Code 9783 Program Manager. The General Foreman shall have:
 - (a) A minimum of six (6) years managerial and/or supervisory experience of engineering projects including operations, maintenance, repair, testing, modification, upgrading, installation and alteration of Naval ship systems.
 - (b) A minimum of six (6) years experience in design, test, operation and maintenance of Naval ship systems.
 - (c) Minimum of two (2) years experience with habitability systems, subsystems, equipment, components, furnishings and spaces on Navy ships.
 - (d) Minimum of one (1) year experience with 3-M Systems (PMS, COSAL, and ILS) and the SHIPA-LT/FMP processes.
 - (e) Knowledge of relationships, policies and procedures of NSWCCD-SSES, NAVSEA, Naval Shipyards, Type Commanders and the Navy's supply system's organizations.
 - (f) Must have a minimum of a high school degree or a technical vocational high school degree.
- (4) <u>Foreman (Key personnel):</u> The Foreman is the individual responsible for the on-site accomplishment of a specific task or several concurrent tasks on one vessel or more than one vessel in the immediate vicinity. He/She ensures workers on-site are fully and gainfully employed, routinely interfaces with the NSWCCD-SSES Code 9783 Installation Manager. He/She plans for and runs foreman meetings, files all related reports, maintains a safe and clean work site and provides the technical, administrative and managerial guidance and control over the contractor laborers. The Foreman shall have:
 - (a) Minimum of two (2) years of supervisory experience in a trade position in Naval ship systems.
 - (b) Minimum of eight (8) years' experience in working in trade positions in Naval ship systems.
 - (c) Working knowledge of Navy systems and procedures.
 - (d) Must have a minimum of a high school degree or a technical vocational high school degree.
- (5) <u>Engineering Technician</u>: The Engineering Technician is the technical expert whose experience supports shipboard installation details, testing and equipment operational acceptability; supports the engineer with shipboard data; and assists with crew training and equipment familiarity as specifically requested and approved by the foreman and NSWCCD-SSES Code 9783 Program Manager. The engineering technician shall have:

- (a) Minimum of four (4) years experience in the technical aspects of shipboard design, operations, maintenance, testing and evaluating projects and associated modifications, alterations, installations and upgrades for Naval vessels.
- (b) Minimum of three (3) years experience with Naval and related commercial shipbuilding design, operations and maintenance data systems, principals, practices, procedures, processes, standards, drawings and specifications.
- (c) Minimum of one (1) year experience with naval habitability systems, subsystems, equipment, components, furnishings and spaces.
- (d) Working knowledge of related Integrated Logistics Support (ILS) requirements (PMS/RCM, COSAL, APL and procurement processes) and the SHIPALT/FMP processes.
- (e) A graduate of high school or technical trades school or four (4) years experience as an Able Bodied Seaman.
- (6) <u>Quality Assurance Inspector (Key personnel)</u>: The Quality Assurance Inspector is the person that ensures materials and equipment are what is procured and meet specifications, develops needed certification procedures and ensures procurement specifications are in accordance with naval requirements. The inspector shall have:
 - (a) Minimum of six (6) years experience with quality assurance and inspection for maintenance, repair, testing, installation, modification, upgrade or alteration of naval vessels.
 - (b) Minimum of two (2) years experience with habitability systems, subsystems, equipment, components, furnishings and spaces.
 - (c) Working knowledge of Naval and industry, quality assurance standards, principles, and practices.
 - (d) Must have a minimum of a high school degree or a technical vocational high school degree.
 - (7) <u>Planner/Estimator/Logistician</u>: The Planner/Estimator/Logistician is the person who determines the amount of material and manpower needed to do a work effort; procures, inventories and manages storage of materials and equipment; develops and maintains material lists for inclusion in ship's index drawings updates; and produces cost and manday estimates and milestones/PERT/critical path reports. This person shall have:
 - (a) Minimum of four (4) years experience with habitability systems, subsystems, equipment, components, furnishings and spaces on Navy vessels.
 - (b) Minimum of eight (8) years experience in following cost estimating (time and material) and material procurement, management and control in the following areas:
 - (i) Mechanical and electrical
 - (ii) Heating, ventilation and air conditioning
 - (iii) Hull (Sheet Metal and Structural) and Piping.
 - (c) Must have a minimum of a high school degree or a technical vocational high school degree.
- (8) <u>Computer Aided Design (CAD) Operator</u>: The Computer Aided Design (CAD) Operator is the person who operates the CAD system to produce manufacturing, arrangements and ship's installation drawings as required per delivery order direction. The CAD operator shall have:

- (a) Graduated from high, trade/industrial or correspondence school in which credits were received in algebra, plane geometry, trigonometry, drafting and physics; a minimum of three weeks of formal training in computer aided drafting; and six months practical experience. Practical experience need not be on Navy ships but is preferable.
- (9) <u>Trade Personnel</u>: The following trade positions shall have a minimum of two (2) years of shipboard experience in the position and be at the journeyman level of competence, and all must have a minimum of a high school degree or a technical vocational high school degree except where otherwise specified:
 - (1) Burner/Welder Welder certified in accordance with NAVSEA Standard Item 009-12, NAVSEA S9074-AQ-GIB-010/248 and NAVSEA 0900-LP-001-7000 for materials such as high strength steel HY80/HY100, bimetal, aluminum, cres, copper, brass, bronze, etc. See C.15.B
 - (2) Electrician
 - (3) Electronics technician
 - (4) Inside machinist
 - (5) Installation mechanic
 - (6) Pipefitter
 - (7) Heating, ventilation, APC
 - (8) Air conditioning and refrigeration
 - (9) Sheet metal mechanic

Note: Due to the nature of the work, crossing of trade boundaries will be required (i.e., paint touch up will not require a painter in most cases, each person will clean up after themselves thus not requiring sweepers/cleaners, mechanics will be expected to rig their own gear vise needing riggers (except for heavy lifts), etc.).

C.7. DELIVERABLES (DATA REQUIREMENTS)

- (A) The contractor shall maintain a DEL-TEC or equivalent system, and this system shall be required to produce the financial/tracking reports as indicated on the DD Form 1423's.
- (B) DD Form 250's will be used as the acceptance documents and the contractor will be required to submit them at the completion of work performed in accordance with each individual order placed under this contract. All other technical data requirements to be furnished shall be specified on the DD Form 1423 in each individual delivery order under this contract.
 - (1)A list of security clearance information shall be provided to NSWCCD-SSES Code 9783 at least 45 days prior to the work start date for each delivery order issued under this contract. The list shall include social security number, citizenship and level of clearance.
 - (2) Foreman meeting minutes shall be delivered to NSWCCD-SSES Code 9783 within five days of their conclusion. Minutes shall reflect overall and sub tasks' progress/completion, day-by-day work schedules and related accomplishments, team members and their arrival and departure times, scheduled overtime, problems encountered and their resolutions, anticipated changes and problems, material status.
 - (3) Action items and lessons learned (if substantial, this can be filed separately within 10 days following completion of the work effort).
 - (4) "As-installed" drawings (the originals and two copies) for each configuration change to NSWCCD-SSES Code 9783 and a copy to the ship. An advance copy of the installation drawing(s) shall be provided to the ship prior to the team's departure).
 - (5) Quarterly overall inventory status report of all material, tools and equipment acquired for the work effort and disposition of those used.

- (6) Purchase receipt/tracking report of material procurements for each assigned delivery order. Reference line item numbers from delivery order of material drawn for each procurement.
- (7) Financial Completion Report within 30 days after completion of each separately placed delivery order on this contract. Since there can be multiple tasks on some of the separately placed delivery orders it will be necessary to identify each work effort individually. Report will include:
 - (a) Material costs; item descriptions; vendor names, make, model and serial information, unit cost, quantities procured and invoice numbers
 - (b) Prefabrication labor hours broken down by trade categories
 - (c) Prefabrication Labor costs broken down by trade categories
 - (d) Work effort labor hours broken down by trade categories
 - (e) Work effort labor costs broken down by trade categories
 - (f) Travel costs showing airfare, per diem, and car/truck rental
 - (g) Shipping costs
 - (h) Same information for other direct costs such as subcontracted support/materials
- (8) If required, provide prefabrication schedule and resource needs within five working days after award for each separately placed delivery order awarded under this contract.
- (9) Monthly progress reports shall be furnished by the fifth working day after the reporting period in accordance with the DD Form 1423 in the format specified.
- (10) Delivery orders, which involve submarine work, will require a written qualification statement for each worker assigned. Submit this written statement to NSWCCD-SSES Code 9783 within five days after award of the subject delivery order.
- (11) Provide personnel security information for all personnel connected with the contract (name, social security number, citizenship and level of security clearance) to COR initially and update quarterly for the duration of the contract.
- (12) Provide a complete inventory of material ordered and delivery schedules two weeks after award of the delivery order.
- (13) Provide installation manager a weekly update report on installation progress/status for all delivery orders.
- (14) Provide preliminary shipcheck drawings with material list within 15 days after shipcheck.
- (15) Provide completed form of Industrial/ Alteration Pre-Start Checklist before install and completed ICPC form upon completion of installation for each awarded task. Forms are available upon request from contractor.

C.8 STANDARDS/SPECIFICATIONS

- (A) Performance under this contract shall be in accordance with the following standards and specifications, as required. It is to be noted the following standards and specifications are provided for guidance purposes only.
 - (1) Work plan and schedule
 - (2) Ship Alteration Records (SARs), and Ships Drawing Index (SDI) for prospective installation units, as applicable
 - (2) As-Installed Drawings and sketches
 - (3) (4) NAVSEA S9AAO-AB-GSO-010/GSO, General Specifications for Overhaul of Surface Navy Ships
 - (5) NAVSEA S9AAO-AA-SPN-010/GEN SPEC, General Specifications for Ships
 - (6) MIL-STD-454, Standard General Requirements for Electronic Equipment

- (7) S9074-AQ-GIB-010/248, Welding and Brazing Procedure and Performance qualification
- (8) MIL-STD-1310, (Navy) Bonding and Grounding
- (9) NAVSEA S9300-AW-EDG-010, Electrical Plant Installation Standard Methods
- (10) Electrical Workmanship Standards, Portsmouth Naval Shipyard Standard 4855.1 through 4855.6
- (11) MIL-STD-1689A (SH), Fabrication, Welding and Inspection of Ship Structures
- (12) MIL-STD-0022D, Welded Joint Design
- (13) NAVSEA S9086-VH-STM-OOO/CH-635, Thermal Insulation
- (14) OPNAV Instruction 5100-23B, Navy Occupational Safety and Health (NAVOSH) Program manual
- (15) NAVSEA S9086-VD-STM-OOO/CH-631, for Painting
- (16) NAVSEA 0901-LP-480-0002/CH-9480, for Piping Systems
- (17) NAVSEA 0902-LP-018-2010, General Specifications for Deep Diving SSBN/SSN Submarines
- (18) NAVSEA S9600-AD-GTP-010, w/chg. A, U.S. Navy Shipboard Furniture Catalog.
- (19) NAVSEA S6161-Bl-CAT-010, rev 1, Shipboard Laundry and Dry Cleaning Equipment Catalog
- (20) NAVSEA S6161-Q5-CAT-010, Sep 92. Naval Shipboard Food Service Equipment Catalog
- (21) NAVSEA Habitability Design Practices Manual.
- (22) NAVSEA INST. 9210.4A for all non-nuclear work on nuclear powered ships.
- (23) NAVSEA 0900-LP-001-7000, Fabrication and Inspection of Brazed Piping Systems
- (24) NAVSEA S9074-AR-GIB-010/278, Requirements for Fabrication Welding and Inspection and Casting Inspection and Repair for Machinery, Piping and Pressure Vessels.
- (25) T9074-AD-GIB-010/1688, Requirements for Fabrication, Welding, and Inspection of Submarine Structure.
- (26) T9074-AS-GIB-010/271, Requirements for Nondestructive Testing.
- (27) COMNAVSEASYSCOM WASHINGTON DC 130557Z FEB 01, Inspection, test, and repair of copper service steam and return piping.
- (28) MIL-STD-2035, Nondestructive testing acceptance criteria.
- (29) NAVSEA Standard Item 009-12.

C.9 TECHNICAL DATA REOUIREMENTS

- (A) All data to be supplied shall be furnished pursuant to FAR Clause 52.227-7013, entitled "Rights in Technical Data." The data shall be specified on a DD Form 1423, which shall be made a part of each separately, placed order, as applicable, and shall be a line item on the said order. The DD 1423 will list the data to be supplied under each order.
- (B) All material generated by the contractor including all original drawings is the property of the government and shall be delivered to the government upon completion of the contract. No data developed under the contract shall be available or sold to any requesting government or private activity without the expressed written approval of the Commander, Naval Surface Warfare Center, Carderock Division, Philadelphia PA. 19112-5083.
- (C) Monthly progress reports shall be furnished by the fifth working day after the reporting period in accordance with the attached DD Form 1423 and shall be in the format specified.
- (D) For separately placed orders on this contract, deliverables will include (but are not limited to) those called out in paragraph C.7.

C.10 INSPECTION AND MANNER OF DOING BUSINESS

- (A) Work shall be performed in accordance with the contract and each separately placed delivery order and/or any other drawing, specification, etc. authorized by the contracting officer.
 - (1) All operational practices of the contractor and all workmanship and material, equipment, and articles used in the performance of work shall be in accordance with rules and requirements of the American Bureau of Shipping, the US Coast Guard, the American Society of Mechanical Engineering, the American Society of Testing and Materials, the Institute of Electrical and Electronic Engineers and the best commercial marine practices, except where Navy specifications are called out (in which case Naval

Standards of material and workmanship shall be followed) in effect at the time of the contractor's acceptance of the separately placed delivery order.

- (2) All material and workmanship shall be subject to inspection and/or test during the contractor's performance of the work to determine quality and suitability for the purposes intended and compliance with the contract. In the event that any material or workmanship furnished by the contractor is found, prior to or after acceptance, to be defective or not in accordance with the requirements of the contract, the Government shall have the right to reject such material or workmanship, and to require its correction or replacement by the contractor at the contractor's cost and expense. If the contractor fails to proceed promptly with the replacement or correction of such material or workmanship as required by the Contracting officer, the Government may, by contract or otherwise, replace or correct such material or workmanship and charge to the contractor the excess cost occasioned the Government thereby.
- (3) The contractor shall provide and maintain an inspection system acceptable to the Government covering the work specified in the contract. Records of all inspection work by the contractor are to be sent to NSWCCD-SSES Code 9783 during the performance of the task and within a period of 30 days after completion of the alteration.
- (4) No welder shall be permitted to work in connection with any work either on or to be placed on any vessel associated with this contract and its delivery orders unless he/she is at the time, qualified to perform the required type of welding. No welder shall be permitted to work on production applications of welding other than those for which he is qualified. This includes welders hired as sub-contractors.
- (5) The contractor shall exercise reasonable care to protect the vessel from fire and shall maintain a reasonable system of inspection over the activities of workers, particularly where such activities are undertaken in the vicinity of the vessel's magazines, fuel oil tanks, or spaces containing flammable and combustible materials.
- (6) The work shall, whenever practical, be performed in such manner as not to interfere with the operation and maintenance, berthing and messing of civilian or military personnel attached to the vessel or facility.
- (7) The contractor shall at all times keep the site of the work on the vessel free from accumulation of waste material or rubbish caused by his employees or the work. At the completion of each day's (shift's) work and the work effort as a whole, the contractor shall remove all rubbish from the worksite and any affected spaces leaving the work/spaces "broom clean".
- (B) Disposition of waste material removed during alteration will be in accordance with ship, Navy, state and local ordinances.

C.11 WORK GROUND RULES

- (A) Prior to the work start date, the Foreman shall meet with the NSWCCD-SSES Code 9783 Installation Manager to review the installation plan, drawings, work schedule and to reaffirm the ground rules. Also, see paragraph C.4.A.1.
 - (1) The NSWCCD-SSES Code 9783 Installation Manager will provide directions and requirements to the Foreman (rather than individual team members). When the Foreman leaves the ship while work is in progress, the Foreman will appoint an acting Foreman and identify this individual to the NSWCCD-SSES Code 9783 Installation Manager or the government on site representative.
 - (2) All proposed material substitutions shall be discussed and be agreed to by the NSWCCD-SSES Code 9783 Program Manager before the start of work. Approval of any material substitution does not relieve the contractor from the requirement to not incur costs in excess of the ceiling price set forth in the applicable delivery order.

- (3) The Foreman shall brief the NSWCCD-SSES Code 9783 Installation Manager on work progress and status each workday before 0900 on the following:
 - (a) Adherence to planned schedule
 - (b) Number of personnel onboard
 - (c) Material needed or proposed substitution
 - (d) Any proposed changes in the installation
 - (e) Change in scheduled completion date
 - (f) Labor hours used on previous day.
- (4) The Foreman shall brief the NSWCCD-SSES Code 9783 Installation Manager on work progress/problem upon completion of the each day's work.
- (5) Contractor employees will not visit ships without prior NSWCCD-SSES Code 9783 written approval.
- (6) All communications with DOD, Naval activities and ships and any others associated with this contract and related delivery orders shall be via NSWCCD-SSES Code 9783 Program Manager, COR and/or the Contracting Officer.
- (7) Security clearances will be forwarded to the appropriate ships and/or facilities by NSWCCD-SSES Code 9783.
- (8) All work will be inspected in accordance with the criteria provided under contract delivery orders and by the provisions of this contract.
- (9) Overall coordination of each work effort is the responsibility of the assigned NSWCCD-SSES Code 9783 Installation Manager. This manager may halt work and convene an off ship meeting whenever he/she determines that this is required to resolve problems. This responsibility applies to all aspects of the work effort.

C.12 GOVERNMENT FURNISHED MATERIAL (GFM)

(A) The Government may furnish material/equipment under this contract. Any GFM to be furnished and required instructions shall be identified in specific delivery orders. The handling, storage and placement into work package defined locations will be accomplished by the contractor with the same regards as the contractor is required to provide for contractor furnished materials as specified in this contract. GFM provided to the contractor for installation, shall be subject FAR Clause 52.245-5 "Government Property" and will become the responsibility of the contractor to replace or repair (at the governments discretion) if lost, stolen or damaged while in his care.

C.13 ASSIGNMENT AND USE OF NATIONAL STOCK NUMBERS (NSN)

(A) To the extent that NSNs or preliminary NSNs are assigned by the Government for the identification of parts, pieces, items, subassemblies or assemblies to be furnished under this contract, the contractor shall use such NSNs or preliminary NSNs in the preparation of provisioning lists, packing lists and shipping containers and documents. NSN'S are not required to appear on any equipment, parts or components including spares and repair parts to be furnished under this contract.

C.14 IDENTIFICATION AND MARKING OF PARTS

(A) Identification marking of individual parts within the systems, equipments, assemblies, subassemblies, furnishings, components, groups, sets, or kits and of spares and repair parts shall be done in accordance with applicable specifications and drawings. To the extent identification marking of such parts is not specified in applicable specifications or drawings, such marking shall be accomplished in accordance with the following:

- (1) Parts not manufactured to Government specifications shall be marked in accordance with generally accepted commercial practice.
- (2) Parts manufactured to Government specifications shall be marked as follows:
 - (a) Electrical: all parts in electrical equipments and electrical parts when used in equipments which are not electrical in nature (such as, electric controls and motors in a hydraulic system) shall be identified and marked in accordance with MIL-STD-1285 or, where MIL-STD-1285 does not cover such a part, in accordance with MIL-STD-130.
 - (b) Electronics: all parts in electronic equipment and electronic parts when used in equipments which are not electronic in nature (e.g., electronic fuel controls in some engines) shall be identified and marked in accordance with Requirement 67 of MIL-STD-454.
 - (c) Non electrical or electronic: all parts shall be identified and marked in accordance with MIL-STD-130.
- (B) In cases where parts are so small as not to permit identification marking as provided above, such parts shall be appropriately coded to permit ready identification.

C.15 REOUIRED STANDARD OF WORKMANSHIP

- (A) Unless otherwise specifically provided for by this contract or associated delivery orders, quality of all support rendered hereunder shall conform to the highest standards in the relevant professions, trades or fields of endeavor. All support shall be rendered and supervised directly by individuals fully qualified in the relevant profession, trade or field of endeavor and holding all the related licenses, certificates, etc. required by law. The contractor shall ensure that the shipbuilding practices, specifications for materials, weld joint design, workmanship, welding, inspection and record requirements of NAVSEA Technical Publication T9074-AD-GIB-010/1688 are met for all fabrication and inspection conducted on submarine and non-combatant submersible structures.
- (B) Welding standard of workmanship/performance under this contract shall be in accordance with the following standards and specifications:
 - (1) Welding and brazing procedures and personnel performance qualifications shall be in accordance with C.8.A.7 and C.8.A.23
 - (2) Contractor will have an approved welder training program/procedure as required by C.8.A.7
 - (3) Contractor will have an approved brazing procedure in accordance with C.8.A.23. At a minimum, the procedure will cover P3B piping systems.
 - (4) At a minimum, welding procedures are required for the following processes, material groups and thickness:
 - (a) SMAW S11 to S1 Plate .058-1.0"
 - (b) SMAW S1 to S1 Plate .058-1.0"
 - (c) SMAW S8 to S1 Plate .058-1/2"
 - (d) GTAW S8 to S8 Plate .058-1/2"
 - (e) GTAW S34 to S34 Socket Weld under 3/16" (P2 Reduced energy systems)
 - (f) GMAW S25 Plate .058-1/2"
 - (5) Production welding will be accomplished IAW C.8.a.24 and C.8.a.29
 - (6) Weld inspection personnel shall be qualified IAW C.8.a.26
 - (7) Unless otherwise specified, the acceptance criteria of C.8.a.26 and C.8.a.28 shall be used.
 - (8) All weld joint designs will be IAW C, 8.a.12.
 - (9) All Inspection, test, and repair of copper services steam and return piping will be IAW C.8.a.27.

(10) Contractor shall ensure that the shipbuilding practices, specifications for materials, welding, weld design, mechanical fasteners, workmanship, inspection, foaming, castings, and record requirements of C.8.a.11 are met for all fabrication and inspection of the hull and associated structures of combatant surface ships.

C.16 REQUIREMENTS FOR SUBCONTRACTS AND MATERIAL COSTS

- (A) This contract is for the furnishing of, engineering, technical support and materials incidental to performance. Attention is directed to FAR Clause 52.244-2 (Alt I). The contractor may not subcontract for specialized support (such as terrazzo, quarry tile, carpeting, vinyl tile, gas free engineer, etc.) in excess of that prescribed in the FAR Clause without written approval of the Contracting/Ordering Officer. These costs shall be covered under Support Costs (Items 0003AA, 0003AB, and 0003AC) in this contract.
- (B) All delivery order Material costs must identify nomenclature, quantity, unit and extended prices per item. Three vendor quotes shall be provided for all items over \$2500; if unavailable, justify how the price was determined fair and reasonable.

C.17 DEFINITION OF STRAIGHT TIME AND OVERTIME

- (A) Straight (regular) time is defined as the normal workday of eight hours per day, five days per week (Saturdays, Sundays and Government observed holidays excepted).
- (B) Overtime shall be defined by state laws with jurisdiction over the place of performance, may differ and shall apply to this contract. Overtime shall be used only upon prior approval as stated in each separately placed delivery order.

C.18 REIMBURSEMENT OF TRAVEL

- (A) Performance under this contract may require travel by contractor personnel. If travel, domestic or overseas, is required, the contractor is responsible for making all needed arrangements for his personnel. This includes, but is not limited to, the following:
 - (1) Medical Examinations/immunization
 - (2) Passports, visas, etc.
 - (3) Security Clearances
 - (4) Flight reservations
 - (5) Motel/hotel accommodations
 - (6) Car/Truck rental.
- (B) All contractor personnel required to perform work on any Naval vessel must obtain boarding authorization from the Commanding Officer of the vessel prior to boarding via the NSWCCD-SSES Code 9783 Program Manager.
- (C) The Government will reimburse the contractor for allowable travel costs incurred by the contractor in performance of requirements of the contract and the specific delivery orders in accordance with the provisions set forth for temporary duty travel in the Department of Defense Joint Travel Regulations (JTR); Vol. 2 for Civilian Personnel.
- (D) Travel, subsistence, and associated labor charges for travel time are authorized for travel beyond a 50-mile radius of the local office (which itself must be within 50 miles of the Norfolk, VA/Tidewater area Naval ships complex), whenever a task assignment requires work to be accomplished at a temporary alternate worksite. No travel, subsistence, or associated labor charges for travel time shall be charged for work performed within a 50-mile radius of the contractor's local office and the Norfolk, VA/Tidewater area Naval ships complex. Travel performed for personal convenience and/or daily travel to and from work at contractor's facility will not be reimbursed.

- (E) Per Diem for travel on work assigned under this contract will be reimbursed to employees consistent with company policy, but not to exceed the amount authorized by the Joint Travel Regulation (JTR).
- (F) Whenever work assignments require temporary duty aboard a naval vessel, the contractor will be reimbursed at the per diem rates identified in the JTR, volume 2, Part L: Per Diem Allowances.
- (G) The contractor shall be reimbursed for the actual costs of the most expeditious means of transportation incurred by its personnel not to exceed the cost of tourist class rail or plane fare, whichever is the least expensive, to the extent that such transportation is necessary for the performance of the authorized tasks herein. Such authorization shall be indicated in each separately placed delivery order. In the event that only first class travel is available, it will be allowed, provided the Contracting Officer approves it.
- (H) The use of privately owned conveyance within the continental United States by the traveler will be reimbursed to the contractor at the mileage rate allowed by JTR. Authorization for the use of privately owned conveyance shall be indicated in specific delivery orders. Distances traveled between points shall be shown in standard highway mileage guides. The traveler shall explain rationale for any deviations from distance shown in such standard mileage guides on his expense sheet. Payment for use of privately owned vehicle outside the 50 mile limit from the contractor's facility will be limited to that equivalent to that rate of the most expeditious means of commercial transportation that would normally have been used.
- (I) The contractor shall be entitled to reimbursement for car rental, exclusive of mileage charges, as authorized in the applicable delivery order, when the tasks are required to be performed outside the normal 50 mile limit from the contractor's Norfolk, Tidewater area facilities. Car rental allowed will be for four (4) persons per standard, full sized car; two and three people per intermediate car; and for one person, a compact is allowed. For groups greater than four (4), people will be grouped in fours with the excess less than four fit into the least number of cars needed to accommodate the remaining numbers.

C.19 FACILITIES

- (A) The contractor shall maintain an adequately outfitted machine shop capable of, but not limited to, prefabricating parts, manufacturing and/or providing needed last minute parts or modifications to as-found materials and repairing and storing equipment and materials as required for individually placed delivery orders on this contract. Rental of specialty equipment not routinely used must be authorized on the specific delivery order.
- (B) The contractor shall maintain or have access to a fully outfitted machine and sheet metal shop(s) capable of, but not limited to, performing basic operational testing, performance evaluations, etc. as required in this contract and related delivery orders. Included, though not limited to, is what is considered to be available in a basically outfitted facility:

Machines

Lathe, engine (24" swing)
Milling machine horizontal

Milling machine, vertical

Drill press, radial, #4 spindle

Power hacksaws and bandsaws

Sheetmetal shears and brakes

Welders and cutters

Metal and pipe benders

Ironworker Paint booths

Freon recovery units, AC&R gauges

Tools (Non-Rentals)

Drills (1/4" and 1/2" shank capable)

Power grinders, sanders chippers, peeners

Drills, magnetic base and portable

Come-alongs, chain falls

Droplights and extension cords

Amp, volt and multimeters, meggers

VARIAC and phase meters

Insertion and extraction tools

Wire wrap and crimping tools

Wire sleeving maker

Portable testers, Compartment blowers w/ hoses

Acetylene burning units,

Portable welders (MIG, TIG), Plasma arc

Wet/dry vacuums, brooms, whisks

Full array of hand tools, bolt cutters

- (C) The contractor shall maintain warehouse facilities (approximately 2000 square feet) capable of storing and staging approved government and contractor furnished equipment and materials.
- (D) In order to be certified to work on submarine systems and SUBSAFE components/material or in facility and shipboard areas that are classified, the contractor is required to have facilities, employees and subcontractor employees that are cleared to the same level of security and have the appropriate secure, controlled work and storage areas and permits as specified in the DD254 form attached.
- (E) The requirement for maintaining these facilities shall not be construed to mean that the Government will be obliged to pay any direct costs in connection therewith and further, the contractor shall not be entitled to any direct payment in connection with any personnel set in readiness at or brought to such facility(ies) in preparation or in exception of work to be performed under this contract. Payment for labor hours and materials will be made only for such hours and materials actually expended in performance under the contract.

C.20. MATERIAL SUPPORT

- (A) The contractor will provide the following material support:
 - (1) Adequately trained and certified personnel to identify, procure, store and stage material identified in the applicable delivery orders.
 - (2) All contractor furnished material and equipment as required by the delivery orders.
 - (3) Safe, secure storage facility for government furnished material and equipment as required by the delivery orders.
 - (4) Safe, secure transportation of material and equipment to and between the contractor, NSWCCD-SSES (primarily Philadelphia), subcontractor, other sites (as determined necessary to complete the work effort) and work sites as determined by particular delivery orders.
 - (5) Maintain a current tracking system for material and equipment procurement, storage and use that is compatible and mutually accessible with NSWCCD-SSES Code 9783 computer systems (IBM PC AT) and software.
- (B) The term "material and equipment" includes supplies, raw and manufactured materials, equipment, hardware and Automatic Data Processing (ADP) equipment, support and software. This is a supply contract and the procurement of material of any kind, other than that incidental to and necessary for furnishing of the required supplies is not authorized nor will it be considered an allowable direct cost under this contract. The only material which may be charged to this contract by the contractor is specifically identified below. Other than those items identified, no supplies, materials, equipment, or hardware including any ADP resources may be acquired under this contract without the prior written authorization of the Contracting officer. This authorization may not be delegated to the COR.
- (C) The cost of general business purpose items/expenses required for the conduct of the contractor's normal business operations will not be considered an allowed direct cost in the performance of this contract. General-purpose business items include, but are not limited to, the cost for items such as telephone charges, cellular telephones, facsimile machines, reproduction machines, word processing equipment, personal computers and office equipment and consumable supplies.

The following types of "material and equipment" that may be charged to this contract by the contractor, once approved by delivery order, include, but are not limited to, the following material and equipment:

Material

1. Plate, Metal 24. Wire, Electrical 47. Relays, Electrical 2. Angle, Structural 25. Switch, Proximity 48. Banding, Cable, 49. Tile, deck 3. Bar, Round 26. Switch, Mechanical 4. Pipe, Metallic 27. Light, Indicator 50. Insulation, Fiber 5. Channel, Structural 28. Circuit Breakers 51. Bar. Flat 6. Electrode, Welding 29. Transformer, Power 52. Shock Absorbers 7. Hanger, Cable 30. Stuffing, Tube 53. Channel, Rubber 8. Heater, Thermal 31. Packing, Assembly 54. Sheet, Rubber 9. Contact, Auxiliary 32. Controller, Starter, Motor 55. Rope, Wire 10. Cable, Power, Electrical 33. Strap, Tiedown, Elec 56. Chain, Various 11. Light, Indicator 34. Hardware, Various 57. Stack studs 12. Paint, Enamel 35. Terminal, Box 58. Sheet, Metal 13. Paint, Primer 36. Terminal, Board 59. Roller, Knurled 14. Paint, Deck 37. Lugs, Electrical 60. Ferrule, Electrical 15. Paste, Lagging 38. Connectors, Electrical 61. Fire Cloth 16. Hose, Pneumatic 39. Gasket, Various 62. Mask, Disposable 17. Elbow, Pipe 40. O-Ring, Various 63. Hose, Nonmetallic 18. Tee, Pipe 41. Components, Electronic 64. Decking Material 19. Coupling, Pipe 42. Fixture, Lighting (Various Types) 65. Nipple, Pipe 20. Valve, Gate 43. Solder, Electrical 21. Fluid, Hydraulic 44. Table, Lacing & Typing 22. Oil, Various 45 Brushes, Paint 23. Spring, Various 46. Roller, Paint

Equipment

- 1. Food service (including but not limited to: ranges, griddles, refrigerators, cold and hot food counters and dressers, food preparation and processing, utensil storage and handling, liquid storage and dispensing, kettles, fryers, steamers, etc.
- 2. Furniture and berthing shipwide (including but not limited to bunks, desks, tables, chairs, lockers, files, cabinets, specialty stowages and stowage aids, joiner bulkheads/doors, deck coverings, etc.)
- 3. Laundry and dry cleaning (including but not limited to washer-extractors, tumbler dryers, presses, dry cleaners stowages and conveyances, scales and dispensers, etc.)
- 4. Stowage's and stowage aids (including but not limited to store displays, bulk files, racks, bins, drawers, acids, bases, hazardous materials, flammables, combustibles, compressed gases, EEBD, OBA.
- 5. Medical/dental (limited to those items covered by items previously listed).
- 6. DISALLOWED are cadmium plated fasteners, asbestos containing items; unauthorized material and item substitutions, configuration changes; ungrounded and non UL approved equipment; etc.